

REMARKS

Claims 1-4 are in the instant application and are cancelled without prejudice. New claims 5-13 have been added to more positively recite Applicant's patentably novel hole inspection system and to set forth Applicant's patentably novel hole inspection system in varying scope. No claims are allowed or indicated allowable.

Claims 6-13 are dependent on claim 5. Support for claims 5-13 is found, among other places, in the pending claims and the drawings. Based on the forgoing, Applicant respectfully requests admission and consideration of new claims 5-13.

Claims 1-4 are rejected under 35 U.S.C. §102(a) as being anticipated by Japanese Patent JP 2004-69325 (hereinafter also referred to as the "'325 Publication"). Applicant respectfully traverses the rejection of claims 1-4 under 35 U.S.C. §102(a) as being anticipated by the '325 Publication.

Prior to discussing new claims 5-13, Applicant brings attention to the fact that the instant application is an application claiming priority based on Japanese Patent Application 2003-276014 filed on July 17, 2003. The '325 Publication was published on March 4, 2004, which is a date after the filing date of the priority application of the instant application. Based on the forgoing, Applicant respectfully submits that the '325 Publication does not anticipate claims 1-13 under 35 U.S.C. §102(a) because the '325 Publication was published after the filing date of Japanese Patent Application 2003-276014, the priority application of instant application.

Further, Applicant respectfully submits that even if the '325 Publication was a timely prior art reference, the '325 Publication does not teach the subject matter of new claims 5-13 (the issue regarding claims 1-4 is moot because claims 1-4 are cancelled). More particularly, claim 5 recites, in one form or another, that the hole inspection system includes, among other things, a detecting mechanism for detecting the size of the hole by comparing a detected value of the jet pressure in a predetermined period with an upper limit pressure value corresponding to a maximum size of the hole and a lower limit pressure value corresponding to a minimum size of the hole. The Office Action alleges the '325 Publication calculates the

hole diameter based upon the pressure and a threshold pressure but does state that the '325 Publication teaches that the measurements are made using components that measure within a predetermined time period.

Claims 1-4 are rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 3,431,773 to Calhoun (hereinafter referred to as the "Calhoun patent"). Applicant has cancelled claims 1-4 and this issue is now moot. Applicant respectfully submits that the Calhoun patent does not anticipate claims 5-13 under 35 U.S.C. §102(b). More particularly, claim 5 recites:

A hole inspection system for a pierced container for inspecting an outwardly opened hole formed in a flexible container, comprising:

a pressing mechanism for pressing the flexible container from outside to cause the container to blow out a gas present therewithin through said hole;

a detecting mechanism for detecting a jet pressure of the gas blown out through the hole by said pressing mechanism, and

a determining mechanism for determining a size of said hole by comparing a detected value of the jet pressure in a predefined period with an upper limit pressure value corresponding to a maximum size of the hole and a lower limit pressure value corresponding to a minimum size of the hole.

The Calhoun patent discloses an apparatus and a method for inspecting the presence of lead from a container. In general, the Calhoun patent discloses that a container 45, 63, 89 is used as a test object and is set within a testing receptacle 14, 15, 47, 48, 68, 70. A conductive membrane 42, 62, 85 is set at a discharge opening of the container 45, 63, 89, or an opening of a jig 6. Compressed air is then introduced into the testing receptacle, and if the container 45, 68, 89 leaks, there will occur a bubble like bulging in the conductive membrane 42, 62, 85, so that the membrane will touch an electrode to generate an electric signal, which is determined as presence of a leak.

The Calhoun patent's system, unlike the hole inspection system recited in claim 5, lacks "a pressing mechanism for pressing the flexible container from outside to cause the container to blow out a gas present therewithin through said hole." Therefore, if the

Calhoun patent's system is employed as a hole inspecting system for a flexible container, as is the case with the present claimed invention, the Calhoun patent's system cannot determine the size of the container hole effectively based on the detected value of the jet pressure. Moreover, if the testing of a flexible container were effected actually with the Calhoun patent's system, the complete outer wall of the flexible container would be rendered concave under the effect of the compressed air introduced therein, and it is likely that the conductive membrane 42, 62 85 would be bulging like bubbles in association with reduction of the inner volume of the flexible container associated with the deformation of the container due to increasing the volume of gas moving out of the container. More particularly, the air exiting the container would not exit as a jet of gas. Therefore, the presence/absence of an electric signal generated by the contact with the electrode would be affected by the level of the flexibility of the container, e.g. the thickness of the partitioning wall thereof, which would make an accurate determination of the hole size difficult, if not impossible. Further, the Office Action has failed to show that the Calhoun patent discloses a detecting mechanism for detecting a jet pressure of gas blown out of the hole of the container as recited in claim 5.

Further regarding claims 5 and 6, the hole inspecting system of the Calhoun patent requires large and costly components such as the testing receptacle having a particular shape for surrounding the container as a testing object in a sealed manner, and means for introducing compressed air into the testing receptacle. Whereas, the construction proposed by the present invention requires only such simple devices, e.g. a pair of chucks, and by using the chucks to press a flexible container from outside, the determination of the hole size is possible. The difference between Applicant's claimed invention and the prior art can further be appreciated from the description of paragraph [0008] which recites in part "...since the contained gas is blown out by pressing the container per se, the system can dispense with any device for injecting compressed air into the container from outside for the inspection ..." which, as can be appreciated by those skilled in the art, eliminates the need for costly equipment to generate air.

Based on the forgoing, Applicant respectfully requests allowance of claims 5-13.

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This Amendment is a sincere effort to place this application in condition for allowance. In the event issues remain, the Examiner is invited to call the undersigned to discuss those issues before further action is taken on the application.

Respectfully submitted,

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